

WHAT IS CLAIMED IS:

1. An apparatus for detecting a pre-pit signal at different laser power intensities of an optical disk drive, the apparatus comprising:
an amplifier for receiving a push-pull signal acquired from the optical disk
5 to generate an adjusted signal;
a multiplexer for receiving the push-pull signal and the adjusted signal, selecting the push-pull signal or the adjusted signal according to a power state signal, and generating a slicing signal; and
a slicer for receiving the slicing signal and slicing the slicing signal
10 according to a slicing level to generate the pre-pit signal.
2. The apparatus according to claim 1, wherein the power state signal comprises a low power state and a high power state.
3. The apparatus according to claim 2, wherein the amplifier attenuates the push-pull signal to make a peak value of the adjusted signal at the high
15 power state substantially approximately equal to a peak value of the push-pull signal at the low power state.
4. The apparatus according to claim 3, wherein the multiplexer selects the push-pull signal for output when the power state signal represents the low power state, and selects the adjusted signal for output when the power state
20 signal represents the high power state.
5. The apparatus according to claim 2, wherein the amplifier amplifies the push-pull signal to make a peak value of the adjusted signal at the low

power state substantially equal to a peak value of the push-pull signal at the high power state.

6. The apparatus according to claim 5, wherein the multiplexer selects the adjusted signal for output when the power state signal represents the low power state, and selects the push-pull signal for output when the power state signal represents the high power state.
7. The apparatus according to claim 2, further comprising a second amplifier for receiving the push-pull signal and generating a second adjusted signal, which is input to the multiplexer to replace the push-pull signal.
8. An apparatus for detecting a pre-pit signal at different laser power intensities of an optical disk drive, the apparatus comprising:
 - a variable gain amplifier for receiving a push-pull signal acquired from an optical disk and adjusting the wobble push-pull signal by different gain values according to a power state signal to generate a slicing signal; and
 - a slicing unit for receiving the slicing signal output from the variable gain amplifier and slicing the slicing signal according to a slicing level to generate the pre-pit signal.
9. The apparatus according to claim 8, wherein the power state signal comprises a low power state and a high power state.
10. The apparatus according to claim 9, wherein the gain value of the variable gain amplifier at the high power state is smaller than that at the low power

state.

11. The apparatus according to claim 10, wherein a peak value of the slicing signal output from the variable gain amplifier at the low power state is substantially equal to that at the high power state.

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